

BLACKHAWK

SOCKET-WRENCHES



C.N. & F.W. JONAS
EXCLUSIVE REPRESENTATIVES

BLACKHAWK

SOCKET WARRENCHES

QUALITY
SERVICE



A-1

BLACKHAWK

THE AMERICAN



RUST PROOF
WRENCH

CATALOG No. 1

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MAR 31 1922

A COMPLETE LINE OF SOCKET WRENCHES USED
BY THE AUTOMOTIVE TRADE IN GENERAL, FOR
AUTOMOBILES, TRACTORS, MOTOR TRUCKS, AERO-
PLANES, GARAGES, SERVICE STATIONS, MACHINE
SHOPS, ETC.



MANUFACTURED AT MILWAUKEE, WIS.
BY THE AMERICAN GRINDER MFG. CO.

C. N. & F. W. JONAS
Exclusive Representatives

With Offices at

Transportation Bldg.
111 New Montgomery St.
708 Equitable Savings Bank Bldg.
616 Pioneer Bldg.

Chicago, Ill.
San Francisco, Cal.
Los Angeles, Cal.
Seattle, Wash.

Foreword

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A VERY complete and up-to-date line of socket wrenches is herewith introduced which will be known under the name of BLACKHAWK. This name was chosen because it is fittingly emblematic of the character of the wrenches whose name it bears. The word, BLACKHAWK, is simple, strong, impressive and easily remembered. Its meaning and construction lends itself readily to popularity. On the whole the name is quite analogous to the BLACKHAWK WRENCHES. They are black in finish, which is known as the Parker Rust Proof process, a treatment that is given to guns as an effectual rust preventative, and like the hawk which is known for its grip and speed, the BLACKHAWK WRENCHES are designed for speed work and with a grip that will not miss. The merits and superiority of the BLACKHAWK WRENCHES are such as is bound to make them popular. The material used is of the highest grade. There are many new practical designs in the line which have never heretofore appeared on the market. These wrenches are manufactured at Milwaukee in the plant of the American Grinder Mfg. Co. A special large building with the most up-to-date machinery has been equipped for this purpose. The American Grinder Mfg. Co. is already well known to the trade for their Self-Oiling Grinders which have earned the distinction of being the finest grinders made. A special catalog upon the Self-Oiling American Grinders will be mailed upon request.

C. N. & F. W. Jonas need no introduction as specialists on socket wrenches. They will be the exclusive representatives and it is through them that the entire sales of the BLACKHAWK WRENCHES will be transacted. A trinity such as the well known institution of the American Grinder Mfg. Co., the splendid sales organization of C. N. & F. W. Jonas, and the name BLACKHAWK, forecast a similar popularity as that of the old Indian Chief, BLACKHAWK, of whom it was said that he was "spoken of as much as the weather," meaning that he was known everywhere. So it is hoped that the BLACKHAWK WRENCHES will make their acquaintance in every garage, tool and machine shop, where a mechanic has occasion to handle socket wrenches.



BLACKHAWK

Combination Wrench Sets

For Automobilists, Machinists, Engineers,
Tractors, Aeroplanes, Garage
and Service Station Use.

Built Strong — Guaranteed

Blackhawk Combination Socket Wrench Sets are superior to any other line of similar sets on the market, not only in quality, but for efficiency and finish. They are made of the very best material throughout. The sockets are machine turned from the solid steel bar and properly tempered. The opening of all sockets are accurately broached 1/64" over size, which insures perfect fit and unlimited service. Set No. 10 is very complete and will enable the user to

reach places difficult of access or in cramped quarters, where the ordinary type of wrench is out of the question. To meet all conditions, we have included our guaranteed ratchet wrenches, brace wrench, extension bars, universal joint, etc.

All these tools are finished with the Parker rust proof process which insures against rust, making them very popular for motor boat, automobile, motor cycle, aeroplane, garage and service station use.



No. 10. Set

Contains 9" ratchet wrench, 2 extension bars, pipe wrench, brace wrench, Universal joint, 2 spark plug sockets, 5 open end thin wrenches, pliers, combination tee and offset handle, double end screw driver, valve grinding attachment, cotter pin puller, 16 hex. sockets, sizes, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2 , $2\frac{1}{4}$, $2\frac{1}{2}$, 3 , $3\frac{1}{2}$, 4 , 5 , 6 , 8 , 10 , 12 , 14 , 16 , 18 , 20 , 22 , 24 , 26 , 28 , 30 , 32 , 34 , 36 , 38 , 40 , 42 , 44 , 46 , 48 , 50 , 52 , 54 , 56 , 58 , 60 , 62 , 64 , 66 , 68 , 70 , 72 , 74 , 76 , 78 , 80 , 82 , 84 , 86 , 88 , 90 , 92 , 94 , 96 , 98 , 100 , and 11 square machined steel sockets, sizes, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, 1 , $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2 , $2\frac{1}{4}$, $2\frac{1}{2}$, 3 , $3\frac{1}{2}$, 4 , 5 , 6 , 8 , 10 , 12 , 14 , 16 , 18 , 20 , 22 , 24 , 26 , 28 , 30 , 32 , 34 , 36 , 38 , 40 , 42 , 44 , 46 , 48 , 50 , 52 , 54 , 56 , 58 , 60 , 62 , 64 , 66 , 68 , 70 , 72 , 74 , 76 , 78 , 80 , 82 , 84 , 86 , 88 , 90 , 92 , 94 , 96 , 98 , 100 . The case is a heavy wooden box, with hinged cover and in mahogany finish. Price **\$18.00**



Combination Socket Wrench Sets

A complete set with Ratchet Wrench, sockets, extension bars, etc. Desirable set for garage or shop use. Guaranteed machined steel sockets.



No. 8. Set

- 16 Machined steel hex sockets, sizes $\frac{1}{8}$ to $1\frac{1}{4}$ inclusive.
- 3 Machined steel sq. sockets, sizes $\frac{1}{8}$ to $\frac{1}{2}$ inclusive.
- 1 Ratchet wrench, 9" hdl.,
- 2 Extension bars, 6" and 10" long,
- 1 Universal joint,
- 5 Open end wrenches,
- 1 Comb. tee and offset hdl.,
- 1 Spark plug socket double end,

Packed in wooden box.

Price\$12.00



No. 6. Set

Desirable Set for Car Owner

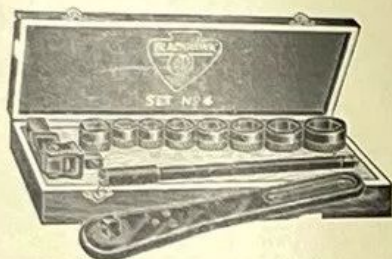
- 15 Hex. Machined steel sockets, sizes $\frac{1}{8}$ to $1\frac{1}{4}$ inclusive.
- 1 9" ratchet wrench,
- 1 Universal joint,
- 1 Extension bar-8",
- 1 Comb. tee and offset hdl.,

Packed in wooden box

Price\$8.00

Combination Socket Wrench Sets

Complete set for Ford owner; will cover all standard nuts and bolt heads.



No. 4. Set

Contains

- 7 Hex. Machined sockets, sizes $\frac{1}{2}$, $\frac{3}{4}$, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2 , $2\frac{1}{2}$.
- 1 Sq. machined socket, size $\frac{1}{2}$.
- 1 9" ratchet wrench,
- 1 Universal joint,
- 1 Extension bar-8",

Packed in wooden box.

Price\$5.50



No. 2. Set

A small but handy set for Automobile, Motor Cycle, etc.

Contains

- 6 Hex. machined sockets, sizes $\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$.
- 1 Comb. tee and offset hdl.,
- 1 Extension bar-6".

Packed in fibre box.

Price\$3.00



No. 50 Stock Cabinet

Given free with assortment of Combination Wrench Parts. This stock cabinet, made up specially for the hardware and accessories store. Dealers will find ready sale for items contained in this most complete stock set. The cabinet is 21" high, 18" wide and 11" deep; each drawer arranged with compartments for the different size sockets, as well as for other items contained in cabinet.

With this stock cabinet you can supply your customers with wrenches for all kinds of work, whether for garage or service station use, manufacturer or farmer. Every tool guaranteed. All sockets are machine turned steel and 1/64" oversize.



No. 50 Stock cabinet contains:

12 each of 16 sizes Hex sockets	
and 6 each of 11 sizes sq. sockets.	
192 Total Hex, 16 sizes	\$0.25 \$48.00
66 total sq., 11 sizes	.25 16.50
4 ea. 4-B, 6-B, 8-B, shanks	.50 6.00
12 T-4 off & tee handle	.55 6.60
4 ea. T-6, T-8, T-10 ex. Bars	.55 6.60
6 T-2, Universal joint	.75 4.50
6 T-5 Offset handle	.50 3.00
6 T-7 Canvas rolls	.50 3.00
3 ea. 3329-3771 Spark plug	.42 2.52
6 911 Ratchet wrench	2.00 12.00
TOTAL	\$108.72

Parts Contained In No. 50 Stock Cabinet

Please order by our stock numbers

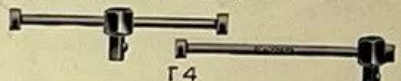
Extra Strong Machined Steel Sockets



Hex. or Sq. Machined Sockets.....\$0.25



No. 911 Ratchet Wrench\$2.00
9" Hdle.



No. T-4 Off and Tee Hdle.....\$0.55



No. T-6 Extension Bar 6".....\$0.55

No. T-8 " " 8"......55

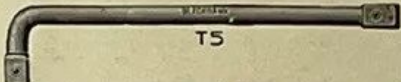
No. T-10 " " 10"......55



No. 4-B Bit shank 4".....\$0.50

No. 6-B " " 6"......50

No. 8-B " " 8"......50



No. T-5 Double End Handle.....\$0.50



No. T-2 Universal Joint.....\$0.75



No. T-7 Canvas Tool Roll.....\$0.50



No. 3329 11/16" x 1-1/32.....\$0.42

No. 3731 11/16" x 1-5/32......42



BLACKHAWK STEEL SOCKETS

Hexagon and Square.

Machined from the solid bar steel. Accurately broached 1/64" over size, insuring perfect fit. Heat treated and Parker rust proof finish. Every socket guaranteed.

Order by Stock Numbers

Each \$0.25



SIZES BELOW ARE BOLT OR SCREW SIZES

TABLE OF HEXAGON SOCKETS									
NO.	SOCKET SIZES	U. S. NUTS SIZE BOLT	HEX HEAD CAP. SCREWS U. S. STD.	S. A. E. STD. NUTS & CAP. SCREWS	A. L. A. M.	MFRS. STD. BOLT HEAD	HEX HEAD SET SCREWS	COACH SCREWS	
14	7-16		1-4	1-4			7-16		
16	1-2	1-4	5-16	5-16	5-16		1-2		
18	9-16		3-8	3-8	3-8	3-8	9-16		
19	19-32	5-16						3-8	
20	5-8		7-16	7-16			5-8		
22	11-16	3-8			7-16				
24	3-4		1-2	1-2	1-2	1-2	3-4	1-2	
25	25-32	7-16							
26	13-16		9-16						
28	7-8	1-2	5-8	9-16	9-16		7-8		
30	15-16			5-8	5-8	5-8		5-8	
31	31-32	9-16							
32	1		3-4	11-16	11-16		1		
34	1-1-16	5-8		3-4		3-4			
36	1-1-8		7-8		3-4		1-1-8	3-4	
40	1-1-4	3-4	1	7-8	7-8		1-1-4		

TABLE OF SQUARE SOCKETS					
NO.	SIZE OPENING	SO. HEAD SET SCREW	SO. HEAD U. S. STD. CAP. SCREWS	SO. HEAD U. S. NUT BOLT SIZE	
014	14-32	7-16	5-16		
016	1-2	1-2	3-8	1-4	
018	9-16	9-16	7-16		
019	19-32			5-16	
020	5-8				
022	11-16	5-8	1-2		
024	3-4		9-16	3-8	
025	25-32	3-4	5-8		
028	7-8		7-16	1-2	
034	1-1-16			5-8	
041	1-9-32	1-1-4	1	3-4	



**GUARANTEED
BROACHED
STEEL
SOCKETS**

Standard Packages

All wrenches and parts packed 10 to a package. Please order in unit packages.

Demountable Rim Brace Socket Wrench

The wrench for use on demountable rims for car owner, or for use in garage or service station. Has solid steel knurled swivel handles, which is far more serviceable than wooden handles. Sockets are the best. Parker rust proof finish. See that BLACKHAWK is stamped on the wrench which insures perfect satisfaction and guarantee.



Each \$1.00

Sizes for Different Make Rims.

- 5120 Sizes 5/8" fits Kelsey Jaxon rims.
 5122 Size 1 1/8" fits Fisk Dem., Goodrich, Firestone.
 5124 Size 3/4" fits Baker, Continental, Detroit, Fisk, Stan. Weld. Goodyear.
 5126 Size 1 1/2", Stan-Weld No. 2, Universal.
 5128 Size 7/8" fits Fisk tires.

When ordering BLACKHAWK wrenches use our stock numbers.

All BLACKHAWK wrenches are finished with the Parker rust proof process.

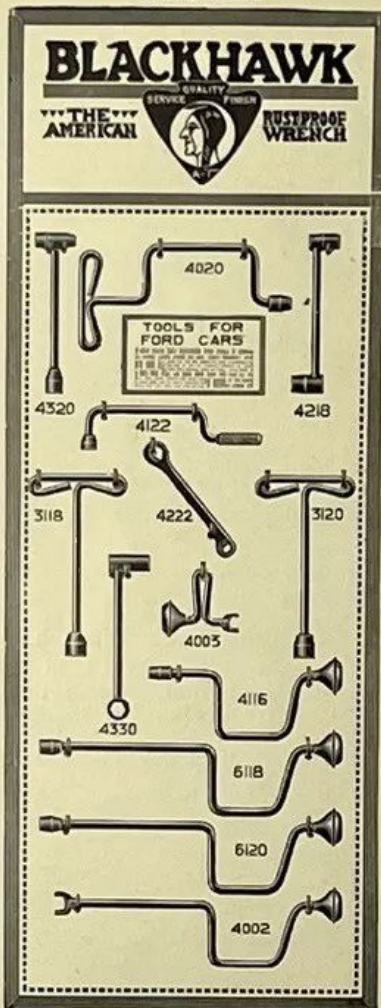


No. 500 Brace

To be used with combination parts.
 Price \$1.50



No. 400. Dealers' Display Set of Special Wrenches Used on Ford Cars



400 Set Contains:

G-4020	\$0.75	\$4.50
G-4320	.65	3.90
G-4218	.65	3.90
G-4222	1.00	6.00
G-4122	.60	3.60
G-3118	.55	3.30
G-3120	.55	3.30
G-4330	1.10	6.60
G-4116	.65	3.90
G-4003	.50	3.00
G-4002	.75	4.50
G-6118	.80	4.80
G-6120	.80	4.80
TOTAL		\$56.10

The tools on No. 400 display board consist of six of each style and are for use on Ford cars by the owner or repairman.

Every tool guaranteed. Repair men want tools that will speed up their work. BLACKHAWK TOOLS DO THIS, for they are made to fit, and will give efficient service and wear.

This display board is most attractive and is an asset to any store. The face is made of sheet steel, handsomely lithographed, which makes it a permanent fixture. Given free with assortment of wrenches as listed under illustration.

Proper Wrenches For Use on Ford Cars

Axle housing bolt and nut	4116-4320-6216-516-616
Brake & rev. sup. nut & bolt	3120-6120-520-420
Brake shoe sup. nut	4218
Brake shoe sup. bolt	520-3120-6120-420
Brake band	4222
Clutch lever & release fork screws and nuts	518-6118-618-3118
Cylinder cover cap screws	6118-618-518-3118
Cylinder head cap screws	6120-620-420-520-4320
Cylinder head inlet con. screws	4320
Cylinder head outlet con. screws	4320
Cylinder valve cover nut and stud	518-3118
Cylinder cover bolt and nut	618-6118-518-3118
Cam gear lock nut	438
Crank case lower cover	4116-4320-516-3116
Crank shaft bearing nuts center, front and rear	4218
Crank case arm bolt and nut	3118-518-1218
Connecting rod clamp screws	4218
Connecting rods including 4th	4020-4120-520-420
Differential case stud and nuts	4320
Differential drive gear screws	516-4116-4320
Drive shaft pinion nut	430-4330
Drive shaft roller bearing nuts	4320
Fan bracket bolt	4218
Fan adj. screw and nut	518-3118-6118-618
Fly wheel cap screw nuts	4122
Fender iron bolt and nuts	4110-616-516-4320
Front spring clip nut	4330
Front spring tie bolt and nut	4320
Hub bolt and nut	4330
Lamp bracket nuts and nuts	4218
Magnet bolt	6118-618-518-3118
Main bearing nut	618-6118-518-3118
Muffler bracket bolt and nuts	4218
Muffler rod nuts	4116-616-4320
Radius rod ball joint	618-420-3118
Radiator stud nuts	1218-3118-618-518
Radius rod bolt and nut	4330
Rear spring clip nut	4330
Reverse band	4222
Running board bolt and nuts	4320
Slow speed con. lock nut	4222
Spindle arm nut	4330
Spindle bolt and spindle bolt nut	4218
Spindle con. rod bolt	4218
Steering arm nut	1224-3125
Steering gear post nut	6124-4218-3124
Steering post bracket	618-518-618-6118
Transmission band adj. screws	4222
Transmission band adj. screw nut	6118-618-3118
Timer case support bolt	4218-3118-518
Transmission cover bolt & nut	618-518-6118-3118
Universal ball cap screws	518-3118



Guaranteed Tools for Use on Ford Cars



4020 Improved Connecting Rod Wrench

This is a new design which fits all Connecting Rods. Especially made to use on fourth Connection. No danger of injuring your hand when using this wrench.

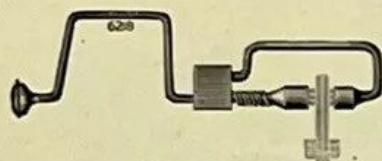
Each \$0.75



4320 Handy Socket Wrench

Socket sizes $\frac{3}{8}$ " and $\frac{1}{2}$ ", for use on Cylinder Head Bolts, rear axle housing nuts, Drive shaft housing stud nuts, water intake and outlet screws, crank shaft lower cover, controller shaft, bracket nuts and many other places, too numerous to mention. The single socket allows one to spin the nut off or on when loose, saving time. See directory for additional uses.

Each \$0.65



6218 Speeder

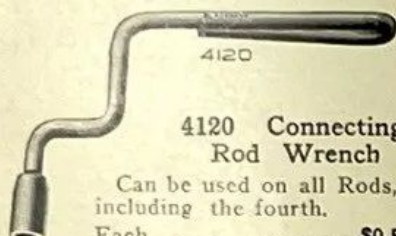
Especially designed for use on engine base bolts. With this wrench greatest speed can be obtained in taking down and assembling the motor. Every garage should be equipped with one or more of this tool.

Each \$3.00

6216 Same as No. 6218

—but with $\frac{1}{2}$ " socket for use to speed up shop operations in taking down and putting the Ford Rear Axle system together.

Each \$3.00



4120 Connecting Rod Wrench

Can be used on all Rods, including the fourth.

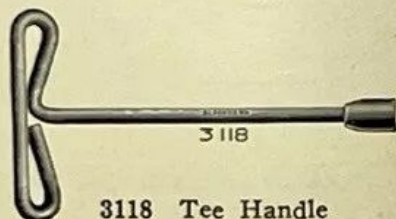
Each \$0.50



3120 Tee Handle Wrench

12" shank. $\frac{3}{8}$ " socket, used on Cylinder Head Bolts, Brake Shoe support, Drive Shaft roller bearings, front and rear spring tie controller shaft bracket nuts. Cylinder inlet and outlet.

Each \$0.55



3118 Tee Handle

Shank 12" long, socket opening $\frac{3}{8}$ ", used on Universal Ball Cap Screws, transmission cover, muffler bracket, inlet and exhaust Clamp, Radius Rod ball joint, Clutch Fork Clamp, Timer Support Arm, engine base bolts, Cylinder cover and Cylinder Valve cover, crank, case, arm, fan adjuster.

Each \$0.55



Guaranteed Tools for Use on Ford Cars



430 Pinion Gear Nut

15/16" Extra Heavy Socket for use on Drive Shaft Pinion nut, especially made for Garage and Service Station use.

Each\$0.65



420 Triple Socket Wrench With Universal Joint

Socket sizes 5/8", 3/4", 7/8", particularly for garage and service station use. Made of very best material and fully guaranteed. Will fit fourth connecting rod, cylinder head bolts, engine base bolts, radius rod ball joint, etc. Also useful for work on other makes of cars. See directory.

Each\$2.50



438 Cam Gear Lock Nut Wrench

Performs its duty with ease, while the old type of wrenches are almost useless. Desirable for garage and service station use.

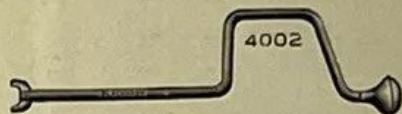
Each\$1.50



4003 Short Valve Grinder

Particularly designed to grind valve under dash when motor is not removed from the car.

Each\$0.50



4002 Long Valve Grinder

Used in all Ford Valves when motor is removed from the car. Can also be used in many other makes of cars.

Each\$0.75



6118 Speeder

Extra heavy 1/2" stock 9/16" socket, especially designed for use on engine base bolts and on many of same parts as 3118. Use this wrench where speed is required.

Each\$0.80



6120 Speeder

Extra heavy 1/2" stock, 5/8" socket for use on Cylinder Head Bolts. For additional use see No. 3120, or directory.

Each\$0.80



4116 Short Speeder

1/2" Socket specially made for use on Crank case lower cover, when no pit is used. Also Fender nuts and Differential drive gear screws.

Each\$0.65



Guaranteed Tools for Use on Ford Cars

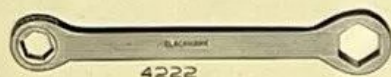
No. 700 Display Board



4218 Hammer Head Double Socket Wrench

Sizes of sockets $\frac{1}{2}$ " and $\frac{3}{4}$ ". Fits Crank Shaft (main) bearing nuts, steering gear post and bracket, Brake Shoe support, spindle bolt and nut, Fan bracket, Radius Rods ball joint nuts, Timer support arms, Lamp bracket nut. See directory for further uses.

Each \$0.65



4222 Transmission Band Wrench

Especially designed for Transmission Bands (brake and reverse), using Ratchet end. $\frac{1}{2}$ " opening. $1\frac{1}{2}$ " Hex. opening. Very best wrench for use on Champion X Spark Plug. No slipping off and breaking the porcelain of Plug. Each \$1.00



4330 Extra Heavy Triple Socket Wrench

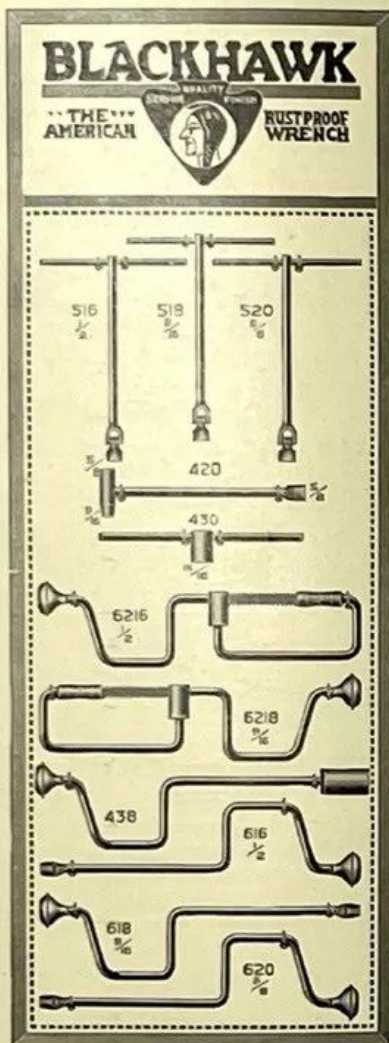
Sizes of sockets $\frac{1}{2}$ ", $\frac{3}{8}$ " and $1\frac{1}{2}$ ". Fits spindle arm and Body bolt nut, rear and front spring clip nut, rear hub lock nut, Hub bolt and nut, Drive shaft Pinion nut, Radius Rod bolt and nut. Each \$1.10



4122 Fly Wheel Cap Screw Wrench

$\frac{1}{2}$ " socket, especially designed to properly perform its duty. Saves labor and money.

Each \$0.60

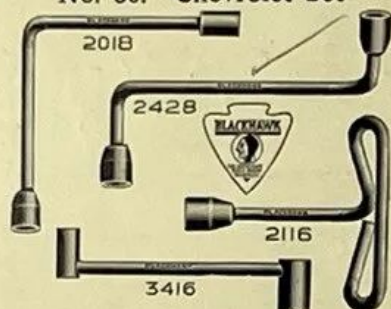


G-No.	516	T hdl.	\$2.25	\$13.50
G-No.	518	T hdl.	2.25	13.50
G-No.	520	T hdl.	2.25	13.50
G-No.	420	Triple	2.50	15.00
G-No.	430	Pinion Gear	.65	3.90
G-No.	6216	Speeder	3.00	18.00
G-No.	6218	Speeder	3.00	18.00
G-No.	438	Cam Gear	1.50	9.00
G-No.	616	Unl. Speeder	2.75	16.50
G-No.	618	Unl. Speeder	2.75	16.50
G-No.	620	Unl. Speeder	2.75	16.50
TOTAL				\$153.90



SPECIAL SOCKET WRENCH SETS FOR OWNERS USE, ALSO GARAGE AND SERVICE STATIONS

No. 30. Chevrolet Set



Price, per set\$2.80

No. 2116

Tee Handle, $\frac{1}{2}$ " socket. Fits all bolts used on oil pan, rocker arm bracket, axle housing, battery hold down clamps, Bendix drive, oil pump, transmission cover, universal joint housing, transmission bearing retainer, generator, water pump cover, steering gear housing.

Price, each\$0.50

No. 3416

Double Socket Wrench, $\frac{1}{2}$ " square and $1\frac{1}{4}$ " hex. sockets fit clutch leather inserts, body bolt and nut, front spindle nut, rear wheel nuts, rear spring rear and front bolt.

Price, each\$0.95

No. 2428

Double Socket Wrench, sizes $\frac{3}{8}$ " and $\frac{1}{2}$ " used on cylinder head bolts, transmission stud, transmission support bolts, clutch collar, main bearing nuts, Rear and front spring bolt.

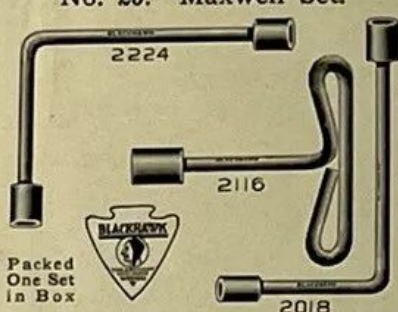
Price, each\$0.70

No. 2018

L Double Socket Wrench, $\frac{5}{8}$ " and $\frac{3}{4}$ ". Fits all bolts, nuts and screws used on fender bracket, connecting rod, fly wheel cap, motor support, clutch yoke, radiator, differential case, connecting rod, upper end; axle housing, B.-G.; intake and exhaust manifold; transmission stud B.-G.; water outlet, rear motor, starting switch bracket, transmission support bracket, steering gear clamp.

Price, each\$0.65

No. 25. Maxwell Set.



Price, per set\$1.90

No. 2224

L Double Socket Wrench, $\frac{3}{4}$ " and $1\frac{1}{4}$ " hex. sockets, used on crank shaft bearing bolts, rear axle nuts, cylinder head bolts and body bolts.

Price, each\$0.75

No. 2116

Tee Handle, $\frac{1}{2}$ " socket, used on differential case bolts, outside crank case cap screws, clutch case to transmission, water inlet manifold, transmission main shaft bearing bolts, front fender brackets, clamps for storage battery, steering gear housing bolts and starting switch bracket cap screws.

Price, each\$0.50

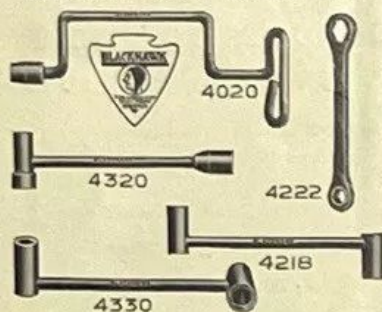
No. 2018

L Double Socket Wrench, sizes $\frac{5}{8}$ " and $\frac{3}{4}$ " fits flywheel cap screws, spring shackle bolts, spring clip nuts, running board bolt and nut, radiator nuts, speedometer bracket bolt, lamp bracket bolts, intake and exhaust manifold bolts, connecting rod nuts, gear case cover cap screws, clutch housing to motor bolts, rear main bearing, nuts, gear housing and main bearing to motor bolts, differential case nut, inside; gear shift housing bolts; cable connections on starter switch, connecting rod wrist pin clamp screw.

Price, each\$0.65



No. 45. Ford Owner Set



Wrenches in this set will take care of practically all bolts and nuts on Ford Cars. Every Wrench Guaranteed and Parker Rust Proof Finish.
Price, per set \$4.15

No. 4020

Fits all connecting rods, including 4th connecting rod.
Price, each \$0.75

No. 4218

$\frac{3}{8}$ " and $\frac{1}{2}$ " socket openings fits crank shaft bearings, radius rod, ball joint nuts, lamp bracket nuts, spindle con. rod, steering gear post, fan adj. bolt, brake shoe support, etc.
Price, each \$0.65

No. 4320

Has $\frac{1}{2}$ " and $\frac{3}{8}$ " sockets. Fits rear axle housing, lower crank case cover, cylinder head bolts, cylinder inlet and outlet connections, differential case, drive shaft roller bearing, running board fender, spring tie, controller shaft bracket.
Price, each \$0.65

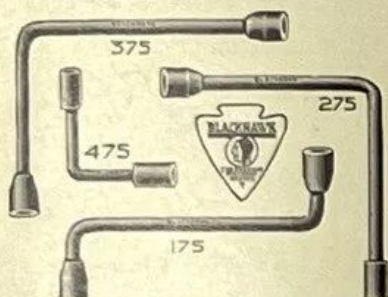
No. 4222

Fits all transmission bands. A great labor saving tool. The 15/16" hex. opening used on Champion X spark plug.
Price, each \$1.00

No. 4330

Has $\frac{1}{2}$ ", $\frac{3}{8}$ " and 15/16" socket openings. Fits front spring clips, drive shaft pinion, hub bolts and nuts, radius rod, spindle arm and spindle body bolts, rear hub lock nuts.
Price, each \$1.10

No. 750. Overland Set



Price, each \$2.45

No. 750. Set Overland Model 90

No. 175. Double Socket Wrench

Size opening $\frac{5}{8}$ " and $\frac{3}{4}$ " fits cylinder head bolts, front spring bolts, etc.
Price, each \$0.65

No. 475. Double Socket Wrench

Size opening $\frac{1}{2}$ " and $\frac{3}{8}$ " fits differential plate cap screw, gear case cover nut and bolts, exhaust manifold bolts, fender to frame nuts and bolts, transmission case cover, crank case screws, front splash pan bolts, differential cover, emergency hand brake lever, sector gasoline tank nuts, radiator stay rod nuts, side plate cap screws, spring clips.
Price, each \$0.50

No. 375. Double Socket L Wrench

Has $\frac{5}{8}$ " and $\frac{3}{4}$ " sockets. Fits steering post nuts, rear hub, cap and many places on other Overland models.
Price, each \$0.65

No. 275. Double Socket Wrench

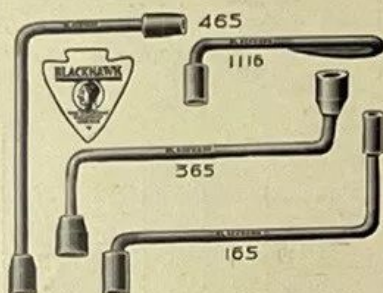
$\frac{3}{8}$ " and $\frac{1}{2}$ " sockets. Fits connecting rod nut, main bearing nuts, and many places on other models of Overland cars.

Above set of Wrenches are adaptable to many parts of other models of Overland cars.
Price, each \$0.65

When ordering Blackhawk Wrenches use our stock numbers.



No. 650. Dodge Set



Price, per set \$2.45

Dodge No. 165

Double Socket Wrench, sizes $\frac{1}{8}$ " and $\frac{3}{16}$ " hex. used on cyl. water inlet, rear axle housing, starter band, etc.

Price, each \$0.65

No. 1116

Offset $\frac{1}{2}$ " socket clutch housing cover, clutch pedal clamp, breather bolts, counter shaft, oil pan strainer and pipe connections, reverse gear bracket idler, steering gear, trans. case cover and plate, timer gear cover.

Price, each \$0.45

No. 365

Double socket offset, $\frac{7}{8}$ " and $\frac{3}{4}$ " hex. sockets for crank shaft, main bearing, connecting rods, shifting shaft plunger and support for uni. joint housing.

Price, each \$0.70

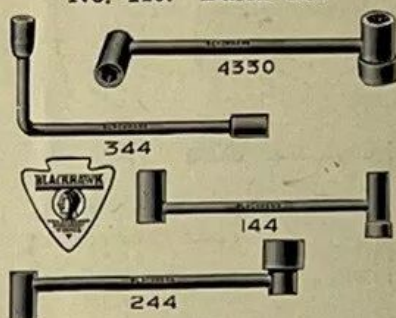
No. 465

L Double Socket Wrenches, $\frac{1}{2}$ " and $\frac{11}{16}$ " hex. sockets used on crank case, cyl. head bolts, oil pump cover.

Price, each \$0.65

No Accessories or Tool Department complete without an assortment of Blackhawk Wrenches. Sales guaranteed. Write for our Catalogue Number 1.

No. 440. Buick Set



Price, each \$3.30

No. 4330

Triple Socket Wrench, sizes $15/16$ ", $7/8$ " and $11/16$ " hex. sockets used on hub bolts, motor arm bolts, nuts on wind shield, front spring shackles bolt and nuts and carburetor connection screws, engine arm bolts, steering arm, rear housing nuts and steering arm nuts.

Price, each \$1.10

No. 244

Double Socket Wrench, $\frac{3}{4}$ " and 1" used on connecting rod nuts for main bearing, steering gear screws, fan screws, crank case nuts, steering arm valve stem nuts.

Price, each \$0.95

No. 344

L Double Socket, sizes $\frac{1}{2}$ " and $\frac{5}{8}$ " hex. sockets, crank case lower cover screws, radiator bracket screws, fender bolts, rear housing cap screws, etc.

Price, each \$0.55

No. 144

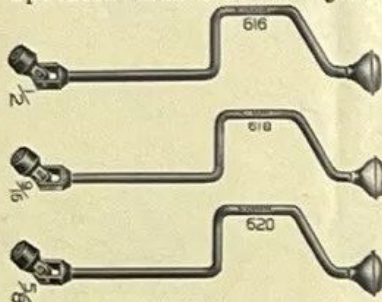
Offset with three sockets, $\frac{5}{8}$ ", $\frac{1}{2}$ " and $\frac{1}{2}$ " hex. used on differential housing screws, rear housing screws, transmission end plate nuts, brake lever nuts and cam shaft support to rods, torsion rods, muffler screws, generator to crank case bolts, break lever clamp screws, cam shaft collar, etc.

Price, each \$0.70

Page nos. 14-15 not included

Page nos. 14-15 not included

Speeders with Universal Joint

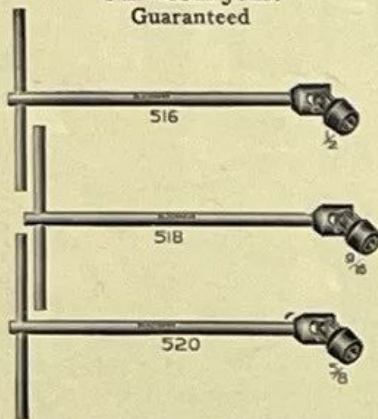


Socket Sizes, $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{5}{8}$ "

Price, each\$2.75

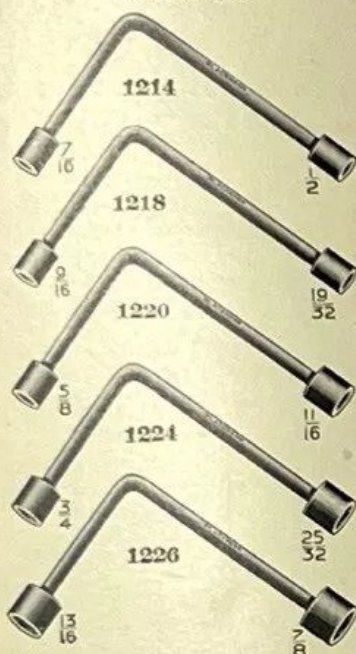
May be applied in many places, where the ordinary solid speeder cannot be used to advantage. These speed wrenches are made of the very best material and will give unlimited service. Every wrench guaranteed. Will be found most desirable for garage use. See directory.

Tee Socket Wrenches With Universal Joint Guaranteed



These wrenches are designed and made particularly for garage and service station use. Will save time in doing work and do it far better, as they will fit places where a particular style of wrench is needed. Made from the best material that can be obtained, and highest grade of workmanship. Every wrench guaranteed. Look for name BLACKHAWK when buying socket wrenches. Each\$2.25

L Socket Wrenches No. 1200 Set.



Made strong and adaptable to many places where a Tee or speed wrench could not be used. Each wrench fitted with two sockets, making in reality 10 wrenches. A desirable set for all garages.

No. 1200 Set (5 wrenches)\$3.25
Each 65

Double End Steel Spark Plug Wrench



No. 3329 $29/32"$ x $1-1/32"$ \$0.42
No. 3731 $31/32"$ x $1-5/32"$ 42

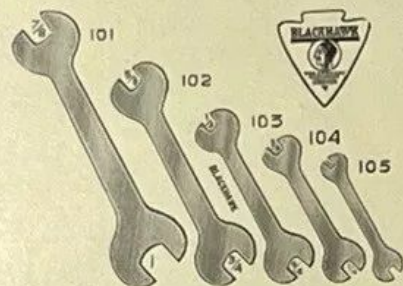
Bit Brace Shank



No. 4-B Bit shank 4"\$0.50
No. 6-B " " 6" 50
No. 8-B " " 8" 50



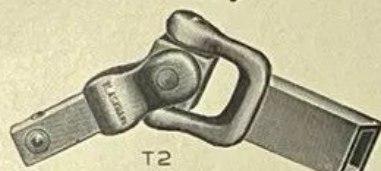
No. 100. Set Thin Open End Steel Wrenches



These wrenches are stamped, made from special steel and properly tempered. Will give satisfactory service.

Per set, 5 wrenches.....\$1.50
Each 30

Universal Joint



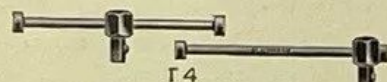
T-2 Extra quality dropped forged.
Price\$0.75

Ratchet Wrench



No. 911 9" handle.
Price\$2.00

Tee and Offset Handle



No. T-4 Each\$0.55

Extension Bars

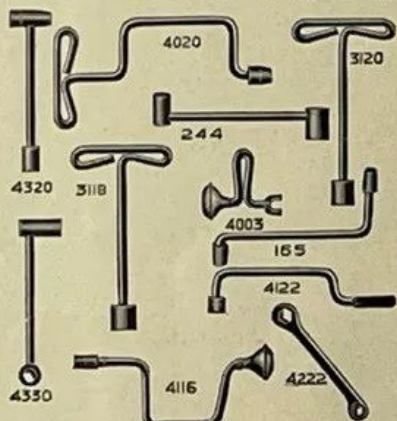


6", 8", 10" lengths, each.....\$0.55

Blackhawk Set No. 43

is a complete and necessary set of socket Wrenches, for use in a garage or service station.

There are no two size sockets on the same style handle. Wrenches in this set will fit many places on many different makes of cars.



No. 43. Set complete.....\$22.70

Contains 30 tools packed in wooden box. See our directory for special use of different style Wrenches in this set.



DIRECTORY

The following list gives the number of the wrench which should be used on the respective places mentioned. Order all Blackhawk wrenches by our stock numbers.

Buick

Air regulator tube bracket nuts	244
Brake shaft to frame nuts	4320
Cam shaft collar clamp screws	4320
Cam shaft supports to differential carrier cap screws	4320
Cap to yoke nuts	4320
Connecting rod nuts	1218-1220
Clutch pedal clamp screw	4320
Connecting rod nuts for main bearing	244
Crank case screws	175
Cylinder stud nuts	244
Differential to main housing cap screws	4320
End plate of transmission cap screws	4320
Front spring shackle bolts	4330
Generator studs	165
Housing cover cap screws	1220-1224
Insert connection carburetor screw	4330
Internal brake cam shaft clamp screw	4320
Motor arm bolt	4330
Muffler nuts	165
Auto brake lever clamp screw	4320
Radiator cap screws	475
Spark cross shaft lever clamp screws	165
Spring clip nuts	244
Steering arm nuts	244
Steering gear cap screws	244
Stop lever adjusting screw	4320
Torsion yoke cap screw	165
Transmission end plate assembling nuts	4330
Valve rocker arm bracket nuts	475
Valve stem nuts	244
Windshield to body nuts	4330

Cadillac

Clutch housing bolts	4330
Crank case nuts	1218
Differential bearing cap screw	4330
Timing gear cover nuts	1218
Water cap nuts	1218
Head lamp brackets	1224
Spring clip	4320
Steering rod adj. nut	1220-6120
Front hub nuts	1224
Front fender sup. bracket nuts	244-165
Cylinder head bolts	6125-1224
Exhaust manifold stud nuts	3118-6118
Engine plates front and rear	4320

Chalmers

Brake lever bolts	165
Connecting rod nuts	4320
Crank case cover bolts	4320-165
Cylinder head nuts	4320
Differential cover nuts	4320
Fan Clamp screws	244
Intake manifold clamp screw	4320
Main bearing nuts	4330
Radiator bolts	1220-1224
Rear transmission bolt	4320
Spoke bolt nuts	4330
Universal joint cap screws	4320

Cole 8

Front lamp bracket nut	6120-1220
Spring clip bolt heads	4320
Running board support bracket nuts, front, center and rear	1218
Front hub nuts	1220
Cylinder head nuts	3122-6122
Radiator to cylinder head water connection	6122
Radiator to pump connection	4320
Radiator nuts	1220
Exhaust manifold stud nuts	6118
Distributor clamp nuts	2118
Timing gear cover plate nuts	4320
Muffler & muffler bracket bolts and nuts	4320-1220
Rear spring to axle housing clamp nuts	4330
Differential housing bolts and nuts	6118-3118-2118-1218
Shifting rod bracket bolts and nuts	4320
Brake drum adj. nut	1124
Brake rod bracket nuts	4320
Rear hub bolt heads	6124-1224
Front and rear spring shackle nuts	4330
Front and rear spring clamps nuts	4330
Front fender to frame sup. bracket nuts	165
Front fender to frame sup. bracket nuts	165
Headlight bracket to frame nuts	165

Chevrolet

Axle housing	1218
Connecting rod	1218
Cylinder head bolts	1224
Front spring cap screw	1120
Intake & exhaust manifold nuts	1218
King bolts	1218-1224
Main bearing nuts	244
Rocker arm bracket	1218
Spring bolt rear	4330
Spring clip nuts	4330
Steering post nuts	244
Steering post sector gear	1218-1220
Transmission sup. bolts	2418
Fly wheel cap screws	1218
Radiator bolts	1218
Differential case bolts	1218
Fender bracket bolts	1218

Dodge

Breather body bolt	475
Bushing adjusting plate	475
Clutch housing cover	475
Clutch pedal clamp	165
Connecting rod nuts	244
Countershaft	175
Crank case cap screws	4116
Crank shaft main bearing	4330
Cylinder water inlet nuts	165
Main bearing nuts	4330
Oil pan strainer	475
Oil pump cover	475
Radiator support stud nuts	6120
Rear axle housing cover screw	165
Reverse idler gear bracket	475
Shifting shaft plunger screw	244
Spoke bolts	4330
Starter strap nuts	165
Steering gear on wheel shaft	475



(Dodge—cont'd)

Timing gear cover	475
Transmission case cover	475
Transmission cover plates	475
Universal joint housing support screws	244

Essex

Front spring to frame nut and bolt	244
Spring clip bolts and nuts	4320
Front hub nuts	1122
Spring shackle bolts and nuts	244
Radiator nuts	4320
Lamp bracket nuts and bolts	105
Exhaust to muffler manifold connection	144
Exhaust manifold stud nuts	616-4320-6116
Cylinder head nuts	6126-3126
Engine base bolts	244
Fan adjusting nut	244
Steering gear adjusting nut	244
Differential housing nuts & bolts	1218-6118-3118
Drive shaft housing nuts	1122
Rear spring to axle housing clip nuts	4330
Rear fender nuts	6116-1214

Ford

Axle housing bolt and nut	4116-4320-6216-516-616
Brake & rev. sup. nut & bolt	3120-6120-520-420
Brake shoe sup. nut	4218
Brake shoe sup. bolt	520-3120-6120-420
Brake band	4222
Clutch lever & release fork screws and nuts	518-6118-618-3118
Cylinder cover cap screws	6118-618-518-3118
Cylinder head cap screws	6120-620-420-520-4320
Cylinder head inlet con. screws	4320
Cylinder head outlet con. screws	4320
Cylinder valve cover nut and stud	518-3118
Cylinder cover bolt and nut	618-6118-518-3118
Cam gear lock nut	438
Crank case lower cover	4116-4320-516-3116
Crank shaft bearing nuts center, front and rear	4218
Crank case arm bolt and nut	3118-518-1218
Connecting rod clamp screws	4218
Connecting rods including 4th	4020-4120-520-420
Differential case stud and nuts	4320
Differential drive gear screws	516-4116-4320
Drive shaft pinion nut	430-4330
Drive shaft roller bearing nuts	4320
Fan bracket bolt	4218
Fan adj. screw and nut	518-3118-6118-618
Fly wheel cap screw nuts	4122
Fender iron bolt and nuts	4116-616-516-4320
Front spring clip nut	4330
Front spring tie bolt and nut	4320
Hub bolt and nut	4330
Lamp bracket nuts	4218
Inlet and exhaust clamp stud and nuts	6118-618-518-3118
Magnet bolt	618-6118-518-3118
Main bearing nut	4218
Muffler bracket bolt and nuts	6118-618-518-3118
Muffler rod nuts	4116-616-4320
Radiator ball joint	618-420-3118
Radiator stud nuts	1218-3118-618-618
Rear rod bolt and nut	4330
Rear spring clip nut	4330
Reverse band	4222
Running board bolt and nuts	4320
Slow speed con. lock nut	4222
Spindle arm nut	4330
Spindle bolt and spindle bolt nut	4218
Spindle con. rod bolt	4218
Steering arm nut	1224-3125
Steering gear post nut	6214-4218-8124
Steering post bracket	618-518-4218-6118
Transmission band adj. screws	4222
Transmission band adj. screw nut	6118-618-3118
Timer case support bolt	4218-3118-518
Transmission cover bolt & nut	618-518-6118-3118
Universal ball cap screws	518-3118

Haynes

Connecting rod nuts	1218-1220
Crank case cap screws	3118
Cylinder to motor base nuts	6123
Fan bracket bolt	165
Fender iron bracket nuts	244
Fly wheel pan cap screws	3118
Light bracket nuts	244
Main leaning bolts	244
Radiator nuts	244
Spoke bolt nuts	4330
Spring clip nuts	4330
Tire pump base cap screw	3118
Transmission cap screw	3118

Hudson

Connecting rod nuts	4320-1220
Connecting rod counterbalance weight	244
Crank case screws	3118
Cylinder crank case nuts	4330
Cylinder head bolts	4330
Exhaust manifold bolts	4330
Fan clamp screws	244
Main bearing bolts	1220-1224
Transmission bolt and nut	244
Water outlet bolts	165
Water pump to crank case bolts	4320
Front spring bolt nuts	4330
Front fender bracket sup. bolt and nut	165
Steering rod adj. nut	1122-1220
Steering rod nut	4330
Front and rear spring shackle nuts	4330
Running board sup. nuts	1222
Exhaust manifold nuts	1220
Muffler bracket nut and bolts	1220
Differential housing	1220-3120
Engine base bolt	1226

Maxwell

Clutch case to engine bolts	3118
Connecting rod nuts	1218-1220
Crank case cap screws	4116
Cylinder head bolts	4330
Differential housing bolts	1218-1220
Engine to bracket bolts	4330
Exhaust manifold bolts	165
Fly wheel nuts	4320
Gear case cover cap screw	165
Head lamp support nuts	1218-1220
Main bearing nuts	244
Radiator nuts	4320
Spring hanger nuts	4320

Oldsmobile, Model 37

Front hub nuts	1220-1122
Front spring to axle clip nuts	4330
Spring clip bolt and nuts	1116-4320
Front fender bracket to frame nuts & bolts	165
Differential housing bolts & nuts	1220-3120-6120
Cylinder head nuts	4330
Brake rod support nuts and bolts	144-165
Muffler bracket nuts	1214-4320
Engine cover plate	6116-3116
Engine base bolts	4330
Fan assembly	144-4320
Timing gear case	1214-6116-144
Connecting rod	4330
Main bearing	4330

Oldsmobile—Model 45-A

Front spring to frame bolt nuts	4330
Lamp bracket to frame bolts and nuts	105-144
Front hub nuts	1220-1122
Spindle nut	4330
Cylinder head nuts	4330-6122-1220
Exhaust manifold stud nuts	6118-3118



(Oldsmobile—cont'd)

Radiator nuts	4320-1218
Dash to frame bracket	6118-3118
Distributor clamp nuts	2116-475
Cyl. head to radiator connection stud nuts	6118-3118
Cyl. head water clamp stud nuts	6118-3118
Engine to frame bolt and nut	244
Engine base bolts	4330
Intake manifold bolt heads	6116-1214
Muffler nuts and timing gear case nuts	165
Differential housing nuts and bolts	4320
Brake support bolts and nuts	144
Torsion rod nut and bolt	2432
Transmission hanger bolt heads	1220-4320
Transmission cover and side plate bolt heads	165-3118-6118
Universal joint nuts	4320

Oldsmobile Truck

Front spring to axle clip nuts	4320
Front fender support nuts and bolts	165
Fan assembly nuts	4320
Timing gear case nuts	4320
Engine to frame bolts and nuts	1220
Valve head upper bearing bolt heads	4320-1116
Cylinder head nuts	6124-3124-4218
Radiator to cyl. head connection bracket bolt head	4320
Front wheel hub nuts	1125
Hub cap nuts, front and rear	6116-3116-1214
Rear hub nuts	4320-6122
Brake drum nuts	4320

Overland

Crank case screws	475
Cylinder head bolts	175-4320-420-3120
Cylinder reduction gear case	475
Connecting rod nuts	275-2116
Differential plate cap screws	475-3116-6116
Differential cover	475-4116-3116
Emergency hand brake lever sector	475
Exhaust manifold bolts	475-2116
Fender to frame nuts and bolts	475-2114
Front splash pan	475-2114
Gasoline tank nuts	475
Gear case cover nuts and bolts	475-2116
Main bearing nuts	275
Oil filler breather pipe	475
Radiator stay rod nuts	475
Oil pumps nuts	475
Rear hub caps	375
Spring clips	475

(Overland—cont'd)

Side plate cap screws	475
Steering post nuts	375
Transmission case cover	475
Wheel flange nuts	4320

Paige

Front spring to frame bolt	4218
Front spring to axle clamp nuts	4330
Spring shackle bolts and nuts	4218
Exhaust manifold nuts	6118-105-3118

Reo

Brake band support nuts	4320
Cylinder to face nuts	4330
Diff. cover bolts	4320
Diff. housing bolts	1125
Engine to bracket nuts	4330
Fan clamp screw nut	4320
Front bearing case nuts	4330
Light bracket nuts	4330
Main bearing nuts	244
Shafting rod bearing cap screw	4320
Spring clip nuts front	4330
Spring collar bolt nuts	4330
Spring and nuts rear axle	4320
Switch block cap screws	4320
Timing gear cover cap screws	4320
Tire carrier to bracket	4330
Universal joint housing nuts	4330
Valve rocker arm bracket nuts	4330
Valve tappet yoke nuts	4330
Water outlet nuts	4320

Studebaker

Connecting rod nuts	1218-1220
Crank case cap screws	4116
Cross shaft gear case cover bolts	4320
Cylinder to crank case nuts	244
Differential bolts	1218-1220
Engine to bracket nuts	244
Exhaust to manifold bolts	165
Gear case cover bolts	4320
Main bearing nuts	4330
Rear spring clip nuts	244
Spoke bolts nuts	1224
Spring hanger bolts	4330
Spring shackle bolts	4330
Tire carrier to bracket bolts	244
Transmission case cover bolts	4320
Water inlet nuts	4320

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We will make any kind of special socket wrench to order.
Send in your blue print specifications.

